

Author: Dr. Sylvie Berney, General Psychiatry Service, Psychiatry Department, CHUV
 Proof-reading: Dr. Christopher Newman Pediatric Neurology and Neurorehabilitation Unit, Department of Pediatrics, Lausanne University Hospital
 Approval: Nathalie Ritter – Student Affairs (SAE), Special needs commission EPFL Lausanne
 Date: August 2020

Important notice:

- This fact sheet is provided for the exclusive use of all the people involved in teaching at EPFL (hereafter “teaching staff”) and is not meant to be transmitted to students. Any use outside of this context, any distribution or publication, even partial, is prohibited.
- The goal of this fact sheet is to provide information to facilitate the interaction between EPFL teaching staff and EPFL students with disabilities.
- Teaching staff are free to apply this information according to their teaching context and the learning objectives to be achieved and as long as these measures do not create an advantage for students with disabilities.
- This fact sheet does not invalidate the study arrangements which have been granted by the special needs Commission to students with a disability.

Dyspraxia

1. Description of the disability

Dyspraxia is a neuro-developmental disorder, which completely or partially affects an individual’s ability to automatically combine a sequence of motor tasks to reach a specific goal (for example tying shoes, opening a container). This lack in sequencing skills may affect different individuals with a different degree of severity. The condition generates slow responses, fatigue and inattentiveness (inattentiveness is a secondary symptom. For example: the person cannot listen to a teacher while writing because of the condition). The disability is not a consequence of a lack of training or a lack of motivation.

The term Developmental Coordination Disorder (DCD) is also used to define dyspraxia. 6 people in 100 suffer from dyspraxia, men are two to four times more likely than women to be affected by this condition. Generally diagnosed during childhood, this disorder persists into adulthood.

People with dyspraxia experience difficulty in doing certain gestures automatically, particularly tasks which require remembering several steps in a sequence. They learn to handle motor tasks only if done repeatedly and this learning process does not automatically generalise to other situations. Each variation of an activity needs to be mastered as if it were new. Dyspraxia is a disability that interferes with the accomplishment of daily activities, academic tasks or with work.

Dyspraxia induces a distinct clumsiness and slowness in the execution and planning of movements. The disorder does not affect everyone in the same way: it can have an impact on a person’s general motricity, fine motor skills or both. This is due to the fact that a large variety of cerebral functions enable motor control. Not all of these functions are equally impacted: only one function or several in combination may be affected.

- Difficulty with motor planning (for example poor coordination of movements, “messy” drawings, illegible handwriting)

- Sensory integration disorder (for example issues organising tasks in space in a logical way, difficulties in assembling a construction, erratic constructions)
- Perception disorder (conscious or non-conscious) i.e. issues with body position and the sense of self-movement (global deficit in motricity in particular bumping into obstacles, dropping objects)
- Difficulty interpreting visual information (for example difficulties assembling a model based on a sketch in geometry)
- Inability to allocate the required attention to specific movements (for example issues with writing while simultaneously listening to a professor)

75% of people with dyspraxia are also affected by a disorder that makes writing difficult. This condition is known as dysgraphia. Living a regular academic and professional life while having trouble in completing certain motor tasks can be especially complicated. Because of the need to concentrate intensely to realise simple and usually routine gestures and/or to accomplish gestures in complex sequences, students may feel fatigued and suffer from attention disorder.

Dyspraxia also frequently coexists with other «dys» disabilities, for example dyslexia.

Dyspraxia is a lifelong condition, but a multidisciplinary care team (general practitioner, occupational therapist, psychomotrician, neuropsychologist, etc.) can help identify each person's specific difficulty in order to elaborate organizational strategies and compensatory solutions.

2. Aspects linked to studies

Students may, or may not (depending on their specific problems) and regardless of their intellectual capacities, face the issues described below.

| Students' issue | Cause/origin of the issue | What is beneficial to students? |
|---|--|---|
| Writing at a slower pace while taking notes during a lecture | Linked to dysgraphia | Record all courses and use a laptop to avoid handwriting |
| Copying texts and charts at a slower pace | Problems with visual spatial aptitudes and/or with writing | Use notes from fellow students/ copy notes/ ask teaching staff to provide texts or charts |
| difficulties in making appropriate use of information provided in a table | Related to difficulties with spatial recognition | Use a laptop |
| Clumsiness, for example during practical training (TP) | Difficulties with fine motor skills and therefore with object manipulation | Have oral or written descriptions regarding the handling of instruments Exercise by repeating the most frequent tasks with an occupational therapist |
| Concentration and fatigue issues | Due to the intense attentional effort to grasp and execute tasks | Record all lectures and use a laptop, use a graphically well-structured study support |

| | | |
|---|---|---|
| Feel a high level of anxiety without showing it | Due to all the difficulties linked to this disability and to the academic and social requirements | Contact Student Affairs (SAE) which will contact a coach specialised in dyspraxia |
|---|---|---|

Students with dyspraxia generally have good oral skills. Technical tools (laptop, recorder, etc.) are of great help to them.

Students with dyspraxia need time to adapt to new situations, while also facing the usual changes linked to university studies such as new group dynamics, friendships, love life and complex social interactions on campus (community life, hierarchical relations, etc.). All of these challenges can have an important impact on students' quality of life and their mental health.

For additional information or if one of your students is facing these challenges, please contact sae.amenagements@epfl.ch

For more information:

(in English) http://elearningcanchild.ca/dcd_workshop/index.html

(in French) <https://www.ciip.ch/Activites/Pedagogie-specialisee/Fiches-pedagogiques>